

- I. *An Account of the Rain which fell every Year at Upminster in Essex, the last Eighteen Years, with Remarks upon that of the Year 1714.* By W. Derham, F. R. S. *Also a Comparison of what has been observed of that kind at Paris, by M. De la Hire.*

LA S T Year having been so remarkably Dry, that Ponds hereabouts are for the most part dry, and the Springs generally either very low or quite failing, I had the Curiosity to make an Extract (out of my Registers of the Weather, &c.) of the *Quantity of Rain* which fell at *Upminster* the last 18 Years. The Particulars of which, every Year, may be seen in the following Table. In one Column of which, the Weight of the Rain in Pounds *Troy* and Centesimals of Pounds, may be seen; in the other, the Depth of it in Inches and Centesimals of Inches, or what Height it would have been, had it not been imbibed by the Earth, or lessened by Exhalations, but been suffered to have stagnated on the Ground.

Among the *Dry Years*, 1704 was complained of for one; which I remember the News-Papers reported to have been so considerable at *Venice*, that they were forced to fetch their Water in Barks five Leagues off, as far as the *Brenta*; so that publick Prayers were put up for Rain. Yet we may observe that several other Years were drier than that with us at *Upminster*. But among them all, none comparable to the last Year 1714. In which the whole Quantity of Rain was no more than 55 l. 95 Hundredths, or 11 Inches 19 Hundredths; whereas the least Quantity of any of the preceding 18 Years, exceeded 15 Inches in Depth.

What Effects this Drought hath had in the Bodies of Animals, I leave others to judge. It is well known how contagious and fatal a Distemper hath raged among, not
only

only our own Black Cattle, but in many other Parts of *Europe*. And I observed the *Itch* was epidemical among the poorer sort, at the beginning of the Year; that the *Measles* were very common, some Parts of the Year; and that *Pleurisies* and *Malignant Feavers* infested a great many, especially in the Summer Months. But how far these Distempers might be owing to the Dry Season, I leave to the Judgment of our learned Physicians.

With greatest Duty and Respect I am the Society's

Most humble Servant, &c.

A TABLE of Rain which fell
at *Upminster*, from the Year
1697, to the Year 1714.

| Year | Weight. | | Depth. | |
|------|---------|-------|--------|-------|
| | l. | Cent. | inch. | Cent. |
| 1697 | 77 | 60 | 15 | 52 |
| 1698 | 122 | 32 | 24 | 46 |
| 1699 | 75 | 54 | 15 | 11 |
| 1700 | 95 | 13 | 19 | 03 |
| 1701 | 93 | 45 | 18 | 69 |
| 1702 | 101 | 89 | 20 | 38 |
| 1703 | 119 | 94 | 23 | 99 |
| 1704 | 79 | 02 | 15 | 81 |
| 1705 | 84 | 62 | 16 | 93 |
| 1706 | 121 | 43 | 24 | 29 |
| 1707 | 81 | 55 | 16 | 31 |
| 1708 | 96 | 09 | 19 | 22 |
| 1709 | 132 | 82 | 26 | 56 |
| 1710 | 91 | 84 | 18 | 37 |
| 1711 | 118 | 02 | 23 | 60 |
| 1712 | 118 | 78 | 23 | 76 |
| 1713 | 115 | 80 | 23 | 16 |
| 1714 | 55 | 95 | 11 | 19 |

To compare with these, we have collected out of the *Memoirs* of the *Royal Academy* of *Sciences*, the Quantity of *Rain* and *Dissolved Snow* which has fallen at the *Observatory* at *Paris* for 23 Years together ; according to the accurate *Observation* of *M. De la Hire*. And that the *Comparison* might be made more justly, we have reduced the *French Measure* to our own. But it is to be observed that the *Diversity* of *Stile* makes the *Years* not exactly the same, though, as to this *Matter*, the difference may seem very *inconsiderable*. We have forborn to make any *Remarks* upon this *Comparison*, leaving it to the *Consideration* of the curious *Reader*.

| Anno. | French | | English | |
|-------|--------|------------------|---------|-------|
| | Inch | lin | inch | Cent. |
| 1689 | 18 | 11 $\frac{1}{2}$ | 20 | 23 |
| 1690 | 23 | 3 $\frac{3}{4}$ | 24 | 87 |
| 1691 | 14 | 5 $\frac{1}{4}$ | 15 | 40 |
| 1692 | 22 | 7 $\frac{1}{2}$ | 24 | 14 |
| 1693 | 22 | 8 | 24 | 18 |
| 1694 | 19 | 9 | 21 | 07 |
| 1695 | 19 | 7 $\frac{3}{4}$ | 20 | 96 |
| 1696 | 19 | 5 $\frac{1}{2}$ | 20 | 76 |
| 1697 | 20 | 3 | 21 | 60 |
| 1698 | 21 | 9 | 23 | 20 |
| 1699 | 18 | 8 $\frac{1}{4}$ | 19 | 93 |
| 1700 | 20 | 0 $\frac{1}{2}$ | 21 | 38 |
| 1701 | 21 | 4 $\frac{1}{4}$ | 22 | 78 |
| 1702 | 16 | 4 | 17 | 42 |
| 1703 | 17 | 4 $\frac{1}{2}$ | 18 | 51 |
| 1704 | 19 | 10 $\frac{1}{2}$ | 21 | 20 |
| 1705 | 13 | 10 $\frac{1}{4}$ | 14 | 82 |
| 1706 | 15 | 3 $\frac{5}{8}$ | 16 | 32 |
| 1707 | 17 | 11 | 19 | 11 |
| 1708 | 18 | 3 $\frac{1}{2}$ | 19 | 51 |
| 1709 | 21 | 9 $\frac{1}{2}$ | 23 | 21 |
| 1710 | 15 | 8 $\frac{3}{4}$ | 17 | 10 |
| 1711 | 25 | 2 | 26 | 84 |